Pushing the Envelope			
2008 Mathematics			
Learning Standards			
Washington Mathematics			
Grade 5			
Activity/Lesson	**State**	**Standards**	
Types of Engines (pgs. 11-23)	WA	MA.5.5.4.C	Write algebraic expressions that represent simple situations and evaluate the expressions, using substitution when variables are involved.
Chemistry (pgs. 25-41)	WA	MA.5.5.4.C	Write algebraic expressions that represent simple situations and evaluate the expressions, using substitution when variables are involved.
Physics and Math (pgs. 43-63)	WA	MA.5.5.4.B	Write a rule to describe the relationship between two sets of data that are linearly related.
Physics and Math (pgs. 43-63)	WA	MA.5.5.4.C	Write algebraic expressions that represent simple situations and evaluate the expressions, using substitution when variables are involved.
Pushing the Envelope			
2008 Mathematics			
Learning Standards			
Washington Mathematics			
Grade 6			
Activity/Lesson	**State**	**Standards**	
Physics and Math (pgs. 43-63)	WA	MA.6.6.2.A	Students are expected to: Write a mathematical expression or equation with variables to represent information in a table or given situation.
Physics and Math (pgs. 43-63)	WA	MA.6.6.2.C	Students are expected to: Evaluate mathematical expressions when the value for each variable is given.
Physics and Math (pgs. 43-63)	WA	MA.6.6.3.A	Students are expected to: Identify and write ratios as comparisons of part-to-part and part-to-whole relationships.
Physics and Math (pgs. 43-63)	WA	MA.6.6.3.B	Students are expected to: Write ratios to represent a variety of rates.
Physics and Math (pgs. 43-63)	WA	MA.6.6.3.E	Students are expected to: Identify the ratio of the circumference to the diameter of a circle as the constant pi, and recognize 22/7 and 3.14 as common approximations of pi.
Physics and Math (pgs. 43-63)	WA	MA.6.6.3.D	Students are expected to: Solve single- and multi-step word problems involving ratios, rates, and percents, and verify the solutions.
Pushing the Envelope			
2008 Mathematics			
Learning Standards			
Washington Mathematics			
Grade 7			
Activity/Lesson	**State**	**Standards**	

Activity/Lesson	State	Standards	
Physics and Math (pgs. 43-63)	WA	MA.7.7.2.B	Students are expected to: Solve single- and multi-step problems involving proportional relationships and verify the solutions.

Washington Mathematics			
Grade 8			
Activity/Lesson	**State**	**Standards**	
Physics and Math (pgs. 43-63)	WA	MA.8.8.1.C	Students are expected to: Represent a linear function with a verbal description, table, graph, or symbolic expression, and make connections among these representations.

Pushing the Envelope			
2008 Mathematics			
Learning Standards			
Washington Mathematics			
Grades 9-12 (Algebra)			
Activity/Lesson	**State**	**Standards**	
Types of Engines (pgs. 11-23)	WA	MA.9-12.A1.3.C	Students are expected to: Evaluate f(x) at a (i.e., f(a)) and solve for x in the equation f(x) = b.
Chemistry (pgs. 25-41)	WA	MA.9-12.A1.3.C	Students are expected to: Evaluate f(x) at a (i.e., f(a)) and solve for x in the equation f(x) = b.
Physics and Math (pgs. 43-63)	WA	MA.9-12.A1.2.B	Students are expected to: Recognize the multiple uses of variables, determine all possible values of variables that satisfy prescribed conditions, and evaluate algebraic expressions that involve variables.
Physics and Math (pgs. 43-63)	WA	MA.9-12.A1.3.B	Students are expected to: Represent a function with a symbolic expression, as a graph, in a table, and using words, and make connections among these representations.
Physics and Math (pgs. 43-63)	WA	MA.9-12.A1.3.C	Students are expected to: Evaluate f(x) at a (i.e., f(a)) and solve for x in the equation f(x) = b.
Physics and Math (pgs. 43-63)	WA	MA.9-12.A1.4.A	Students are expected to: Write and solve linear equations and inequalities in one variable.
Physics and Math (pgs. 43-63)	WA	MA.9-12.A1.4.D	Students are expected to: Write and solve systems of two linear equations and inequalities in two variables.
Physics and Math (pgs. 43-63)	WA	MA.9-12.A1.4.E	Students are expected to: Describe how changes in the parameters of linear functions and functions containing an absolute value of a linear expression affect their graphs and the relationships they represent.

Physics and Math (pgs. 43-63)	WA	MA.9-12.A1.5.A	Students are expected to: Represent a quadratic function with a symbolic expression, as a graph, in a table, and with a description, and make connections among the representations.
Physics and Math (pgs. 43-63)	WA	MA.9-12.A1.7.C	Students are expected to: Express arithmetic and geometric sequences in both explicit and recursive forms, translate between the two forms, explain how rate of change is represented in each form, and use the forms to find specific terms in the sequence.
Physics and Math (pgs. 43-63)	WA	MA.9-12.A1.7.D	Students are expected to: Solve an equation involving several variables by expressing one variable in terms of the others.